Annexes to the IPER

PATENT CLAIMS

Amended

1. Head restraint arrangement,
having a pivotable head restraint (1),
having a support (6, 7) on which the head restraint (1) is pivotably attached between an operating position (a) and a non-operating position (b),
having a locking mechanism (9) coupled with the head restraint (1), which is configured in such a manner that in a locked state the head restraint (1) is held in the operating position (a) and in an unlocked state the head restraint (1) is released for movement to the non-operating position (b), and
having an actuation device (10) for releasing the locking mechanism (9),
characterized in that
the support (6, 7) is pivotably mounted relative to a horizontal plane (4) so that the support (6, 7) with the head restraint (1) can be folded down,
connecting means (18) are coupled to the head restraint (1) and to the support (6, 7), and
the connecting means (18) are configured in such a manner that when folding down the support (6, 7) with the head restraint (1) attached to it, the head restraint (1) is held in the non-operating position (b) at a preset angle (α') relative to the support (6, 7).

2. Head restraint arrangement according to claim 1, **characterized in that** the locking mechanism (9) is configured in such a manner that when the head restraint (1) is moved to the operating position (a) the locking mechanism is brought independently into the locked state and thus the head restraint (1) is held in the operating position (a).

3. Head restraint arrangement according to claim 1 or 2, **characterized in that** the locking mechanism (9) comprises a latch (11) with an opening (12) in combination with a locking pin (13), whereby in the locked state the locking pin (13) engages the opening (12) of the latch (11), while when the actuation device (10) is manipulated the locking pin (13) is moved from the opening (12) of the latch (11).

4. Head restraint arrangement according to claim 3, **characterized in that** the locking mechanism (9) is configured in such a manner that in the unlocked state the locking pin (13) is held against a force of sprung-mounted means (14), whereby when the head restraint (1) is moved to the operating position (a) the retention of the locking pin (13) is released, so that through the force of the sprung-mounted means (14) the locking pin (13) engages the opening (12) of the latch (11), while when the actuation device (10) is manipulated the locking pin (13) is again moved from the opening (12) of the latch (11) and held against the force of the sprung-mounted means (14).

5. Head restraint arrangement according to claim 3 or claim 4, **characterized in that** the latch (11) is coupled with the head restraint (1) and the locking pin (13) with the support (6, 7).

6. Head restraint arrangement according to anyone of the preceding claims, **characterized in that** the head restraint (1) is attached to a cylinder (8), which is rotatably mounted in relation to the support (6, 7).

7. Head restraint arrangement according to anyone of the preceding claims, **characterized in that** sprung-mounted means (14) are provided, in order when the actuation device (10) is manipulated to move the head restraint (1) automatically from the operating position (a) to the non-operating position (b).

8. Head restraint arrangement according to claim 7, **characterized in that** the sprung-mounted means (14) comprise springs, which on the one hand are coupled with the head restraint (1) and on the other hand with the support (6, 7).

9. Head restraint arrangement according to claim 6 and anyone of claims 7 or 8, **characterized in that** the springs on the one hand are coupled with the cylinder (8) and on the other hand with the support (6, 7).

10. Head restraint arrangement according to anyone of the preceding claims, **characterized in that** damping means (15) are provided, in order to dampen

movement of the head restraint (1) from the operating position (a) to the non-operating position (b).

11. Head restraint arrangement according to claim 10, **characterized in that** the damping means (15) on the one hand are coupled with the head restraint (1) and on the other hand with the support (6, 7).

12. Head restraint arrangement according to claim 10 or claim 11, **characterized in that** the damping means (15) on the one hand are coupled with the cylinder (8) and on the other hand with the support (6, 7).

13. Head restraint arrangement according to anyone of the preceding claims, **characterized in that** the actuation device (10) comprises a pressure mechanism.

14. Head restraint arrangement according to anyone of the preceding claims, **characterized in that** limitation means (21, 22) are provided, in order when the actuation device (10) is manipulated to limit movement of the head restraint (1) to the non-operating position (b), whereby the limitation means (21, 22) are configured in such a manner that the head restraint (1) in the non-operating position (b) encloses a pre-defined angle (α) in relation to the support (6, 7).

15. Head restraint arrangement according to any one of the preceding claims, **characterized in that** the head restraint (1) is attached to a cylinder (8), rotatably mounted on the support (6, 7),
wherein the cylinder (8) exhibits at least one projection (22) protruding from its surface, which engages at least one recess (21) formed in the circumferential direction of the cylinder (8) and is mounted therein, whereby a longitudinal end of the recess (21) forms a stop for the corresponding projection (22) of the cylinder (8) and limits rotation of the cylinder (8) with the head restraint (1) attached to it.

16. Head restraint arrangement according to claim 15, **characterized in that** the at least one recess (21) is provided in a corresponding ring (16), which is formed in the circumferential direction of the cylinder (8) and which surrounds the cylinder (8).

17. Head restraint arrangement according to claim 16, **characterized in that** the ring (16) is mounted flexibly relative to the cylinder (8).

18. Head restraint arrangement according to claim 16 or claim 17, **characterized in that** the ring (16) is held in position relative to the cylinder (8) via connecting means (18), which are coupled with the support (6, 7).

19. Head restraint arrangement according to claim 18, **characterized in that** the connecting means comprise at least one Bowden cable arrangement (23) coupled on the one hand with a ring (16) and on the other hand with a pivot spindle (3) of the support (6, 7).

20. Head restraint arrangement according to claim 19, **characterized in that** the connecting means comprise a connection between the at least one ring (16) and the support (6, 7).

21. Head restraint arrangement according to anyone of the preceding claims, **characterized in that** the head restraint arrangement is configured in such a manner that the head restraint (1) is folded away forward in the non-operating position (b) relative to the support (6, 7).

22. Head restraint arrangement,
having a pivotable head restraint (1),
having a support (6, 7) on which the head restraint (1) is pivotably attached between an operating position (a) and a non-operating position (b),
having a locking mechanism (9) coupled with the head restraint (1), which is configured in such a manner that in a locked state the head restraint (1) is held in the operating position (a) and in an unlocked state the head restraint (1) is released for movement to the non-operating position (b), and
having an actuation device (10) for releasing the locking mechanism (9),
characterized in that
the locking mechanism (9) comprises a latch (11) with an opening (12) in combination with a locking pin (13), whereby in the locked state the locking pin

(13) engages the opening (12) of the latch (11), while when the actuation device (10) is actuated the locking pin (13) is moved from the opening (12) of the latch.

23. Head restraint arrangement,
having a pivotable head restraint (1),
having a support (6, 7) on which the head restraint (1) is pivotably attached between an operating position (a) and a non-operating position (b),
having a locking mechanism (9) coupled with the head restraint (1), which is configured in such a manner that in a locked state the head restraint (1) is held in the operating position (a) and in an unlocked state the head restraint (1) is released for movement to the non-operating position (b), and
having an actuation device (10) for releasing the locking mechanism (9),
characterized in that
damping means (15) are provided, in order to dampen movement of the head restraint (1) from the operating position (a) to the non-operating position (b).

24. Seat with a head restraint arrangement according to anyone of the preceding claims.

25. Seat according to claim 24, **characterized in that** the seat is a rear seat of a vehicle.

26. Seat according to claim 23 or claim 24, **characterized in that** a back rest (2) of the seat comprises a frame as the support (6, 7) for the head restraint (1).